

In the claims:

29. (Amended) A heat pump system, comprising:
two units in fluid communication with each other, each unit including:

a housing, an air/brine heat exchanger, a brine/refrigerant heat exchanger, brine inlet means for applying brine onto at least one of said heat exchangers, a brine reservoir and means for circulating said brine from the reservoir to said inlet means;

said brine/refrigerant heat exchangers of said units being in closed loop fluid communication with each other and having compressor means for circulating a refrigerant therethrough in selected directions, and

means for circulating brine between said reservoirs,
wherein said means for circulating the brine between
said reservoirs are adapted to circulate brine at a lower
rate than the rate of circulation of the brine between said
reservoirs and said brine inlet means.

30. (Amended) A heat pump system, comprising:
two units in fluid communication with each other, each unit including:

a housing, brine inlet means at the top portion thereof, a first heat exchanger located adjacent said brine

inlet means, a brine reservoir at the lower part of said housing, and means for introducing air into brine-dripping space delimited between said first heat exchanger and said reservoir, and

a second heat exchanger in liquid communication with said brine inlet means and said reservoir;

said second heat exchangers being [enclosed] in closed loop fluid communication with each other and having compressor means for circulating a refrigerant therethrough in selected directions, and

means for circulating brine between said reservoir and said second heat exchanger of each unit,

and means for circulating brine between said reservoirs,

wherein said means for circulating the brine between said reservoirs are adapted to circulate brine at a lower rate than the rate of circulation of the brine between said reservoirs and said second heat exchanger of each unit.

Please cancel claim 32 without prejudice.

33. (Amended) The heat pump system as claimed in claim [31] 30, further comprising a third heat exchanger

affixed on brine circulating pipes, interconnecting said reservoirs.

Please cancel claim 34 without prejudice.

Please cancel claim 35 without prejudice.

36. (Amended) The heat pump system as claimed in claim [29] 33, wherein at least said unit and said second and third heat exchangers are made of materials non-corrosive to brine.

37. (Amended) The heat pump system as claimed in claim [29] 30, further comprising a throttle valve affixed to a refrigerant-carrying pipe interconnecting said second heat exchangers.

44. (Amended) The method as claimed in claim 43, wherein said [first] air/brine heat exchanger is thermally associated with said refrigerant evaporator.

45. (Amended) The method as claimed in claim 43, wherein said [first] air/brine heat exchanger is thermally associated with said refrigerant condenser.

Please cancel claim 46 without prejudice.

Please cancel claim 47 without prejudice.

48. (Amended) A dehumidifier system comprising:

a dehumidifying chamber into which moist air is introduced and from which less moist air is removed after dehumidification;

a desiccant solution situated in [at least one reservoir] two reservoirs;

a first conduit via which desiccant solution is transferred from [the at least one] a first reservoir of said two reservoirs to the dehumidifying chamber, said solution being returned to said [at least one] first reservoir after absorbing moisture from the moist air;

a regenerator which receives desiccant solution from [said at least one] a second reservoir of said two reservoirs and removes moisture from it;

a second conduit via which desiccant is transferred from [the at least one] said second reservoir to the regenerator, said solution being returned to said [at least one] second reservoir after moisture is removed from it;
[and]

a heat pump that transfers heat from the solution in the first conduit to the solution in the second conduit, and

means for circulating desiccant solution between said reservoirs,

wherein said means for circulating the desiccant between said reservoirs are adapted to circulate desiccant at a lower rate than the rate of transfer of said desiccant from said reservoirs to at least one of said dehumidifying chamber and said regenerator.

49. (Amended) A dehumidifier system comprising:

a dehumidifying chamber into which moist air is introduced and from which less moist air is removed after dehumidification;

a desiccant solution situated in a first reservoir;

a first conduit via which desiccant solution is transferred from the first reservoir to the dehumidifying chamber, said solution being returned to said [at least one] first reservoir after absorbing moisture from the moist air;

a desiccant solution situated in a second reservoir;

a regenerator which receives desiccant solution from the second reservoir and removes moisture from it;

a second conduit via which desiccant is transferred from the second reservoir to the regenerator, said solution being returned to said second reservoir after moisture is removed from it; and

means for circulating desiccant solution between said reservoirs,

wherein a substantial temperature differential is maintained between the first and second reservoirs, and

wherein said means for circulating the desiccant between said reservoirs are adapted to circulate desiccant at a lower rate than the rate of circulation of the desiccant between said reservoirs and at least one of said dehumidifying chamber and said regenerator.

Please add new claims 50-52 as follows:

50. A method for air conditioning, comprising:
providing a heat pump system as claimed in claim 30
and further including a refrigerant evaporator and a
refrigerant condenser, wherein the refrigerant evaporator
and the refrigerant condenser exchange heat with brine
solution, whereby the temperature of condensation of said
refrigerant is reduced while the temperature of said
evaporator is raised, thereby increasing the efficiency of
the system.

51. The method as claimed in claim 50, wherein said first heat exchanger is thermally associated with said refrigerant evaporator.

52. The method as claimed in claim 50, wherein said first heat exchanger is thermally associated with said refrigerant condenser.